

### **3.56 Hazards and Hazardous Materials**

This section presents a summary of a Phase I and Limited Phase II Environmental Site Assessment (ESA) dated July 2002 and updated in October 2007. The report can be found in its entirety in this EIR as Appendix JK-1. Fire hazards are also analyzed due to the potential for wildland fires at the Project Site. The FPP can be found in its entirety as Appendix JK-2. J-3 is an updated Public Facilities Availability Form for the Proposed Project.

#### **3.65.1 Existing Conditions**

##### ***On-site Use of Hazardous Materials***

The Project Site currently supports citrus and avocado orchards that have been in production since at least 1928. Investigation of the Project Site indicated that the south-southwestern portion appears to be used for storage of tractor transmissions, parts, and other agricultural equipment. The western-northwestern portion of the Project Site is used for the storage of pesticides, nutrients, and insecticides.

Single-family residential dwellings with associated garages or sheds are located at various locations throughout the Project Site. A metal hanger/shed with associated metal enclosures is located on the south-southwestern portion of the Project Site. The metal hanger/shed also serves as the ranch office. There is a single-story office/storage shed near the pesticide storage area. Two wind machines occupy the central portion of the Project Site.

A total of 104 subsurface samples were collected and analyzed during the ESA. The results of the sampling found a low potential for hazards on the Project Site from current or historical agricultural operations.

##### ***Hazardous Materials Databases***

A search of available federal, state, and local regulatory and municipal environmental records was conducted as part of the ESA and is included within Appendix JK-1 of this report.

The database search found the Project Site to be identified on the San Diego County Permits Database. Two off-site potential hazardous material sites were also identified within a maximum one and one-half mile radius of the property.

##### ***Wildfire Hazards***

The Project Site is adjacent to the service boundaries of the NCFPD, and within the District's SOI (see Figure 3.65-1). The Project Site is considered to be within a Hazardous Fire Area which is defined as any geographic area mapped by the State or local jurisdiction as a high, or very high hazard area, or as set forth by the Fire Agency Having Jurisdiction (FAHJ) that contains the type and condition of vegetation, topography, weather, and structure density to potentially increase the possibility of vegetation conflagration fires.

### ***Dam Inundation***

Many dams have been built in the San Diego area for the purpose of water conservation and storage. The County's Multi-Jurisdictional Hazard Mitigation Plan identifies dam failure risk levels based on dam inundation map data. A dam is considered high hazard if it stores more than 1,000 acre-feet of water, is higher than 150 feet tall, has potential for downstream property damage, and potential for downstream evacuation. Most of the County's dams are greater than 50 years old and are characterized by increased hazard potential due to downstream development and increased risk from structural deterioration and inadequate spillway capacity.

Emergency plans for dam evacuation are necessary to plan for the loss of life, damage to property, displacement of people, and other ensuing hazards that can occur from dam failure. In the event of dam failure, damage control and disaster relief would be required and mass evacuation of the inundation areas would be essential to save lives. Dam evacuation plans are maintained by the County Office of Emergency Services (OES). These plans contain information concerning the physical situation, affected jurisdictions, evacuation routes, unique institutions, and event responses. In addition, the plans include inundation maps showing direction of flow; inundation area boundaries; hospitals, schools, multipurpose staging areas; command posts/sites; and mass care and shelter facilities/sites. Unique institutions as defined by the OES include facilities such as hospitals, schools, and retirement homes.

The Henshaw Dam is a hydraulic dam that was constructed in 1923 and has a maximum capacity of 51,774 acre/feet. The dam is located in north-central San Diego County approximately 25 miles to the east of the Project Site. The dam inundation zone relative to the Proposed Project boundaries is shown in Figure 3.56-2.

### ***Emergency Air Support***

Helicopters and small planes are used in a variety of emergency response actions such as search and rescue operations and retrieving water to extinguish wildfires. The California Department of Forestry and Fire Protection (CDF) and the County of San Diego Sheriff's Department Aerial Support Detail, Air Support To Regional Enforcement Agencies (ASTREA) base carry out emergency response actions. CDF firefighters are responsible to provide comprehensive fire protection and other related emergency services, including protection of life and property. The San Diego County Sheriff's ASTREA base operates aircraft throughout San Diego County on a daily basis. These aircraft are involved in law enforcement, search and rescue, and fire related missions.

Certain tall structures can physically interfere with the implementation of an emergency response if the height of the structure or tower interferes with the ability of emergency air support services to carry out missions associated with an emergency response. Emergency and fire air support services tend to fly low to the ground for law enforcement activities, to carry out search and rescue missions, to collect water for firefighting, and to evacuate victims in remote areas. Emergency response aircraft require sufficient ground clearance to safely and efficiently function during an emergency response.

### ***Schools***

A school site is proposed within Planning Area 2, located along Horse Ranch Creek Road approximately one-half mile north of SR-76. Prior to the siting of a school, the local education agency is required to consult with local officials to identify facilities within one quarter mile of the proposed site that might reasonably be anticipated to emit hazardous air emissions or handle hazardous materials, substances, or wastes. Where such facilities are present within one-quarter mile of a proposed school site, the local education agency is required to make a finding either that no such facilities were identified; or that they do exist, but the health risks do not or will not constitute an actual or potential endangerment of public health at the site or that corrective measures will be taken that will result in emissions mitigation to levels that will not constitute endangerment.

### ***Vectors***

A vector is any insect, arthropod, rodent, or other animal of public health significance that can cause human discomfort, injury or is capable of harboring or transmitting disease. Disease causing microorganisms can be carried by a "vector," such as a flea, tick, or mosquito that transfers the disease agent from its source in nature to a human host. In the County of San Diego, the most significant vector populations include mosquitoes, rodents, flies, and fleas.

Vector sources occur where site conditions provide habitat suitable for breeding. Within a new development such as the Proposed Project, a standard requirement is the incorporation of measures, or BMPs, to reduce stormwater flow rates, allow stormwater to infiltrate back into the ground, and to reduce constituent concentrations in runoff. However, BMPs used to manage runoff often provide aquatic habitats suitable for mosquitoes and other vector species as an unintended consequence of their implementation.

### ***Existing Regulations***

#### **California Health and Safety Code**

The California Health and Safety Code (H&SC) provides regulations relating to the handling, generation and storage of hazardous substances. H&SC Chapter 6.95 provides the framework for two San Diego County programs: the Hazardous Materials Business Plan (HMBP) program and the California Accidental Release Prevention (CalARP) program. Pursuant to H&SC Chapter 6.95, the HMBP and CalARP provides threshold quantities for regulated hazardous substances. When the indicated quantities are exceeded, a HMBP or Risk Management Plan (RMP) is required.

Chapter 6.5 of the H&SC, the Hazardous Waste and Control Act regulates the generation, treatment, storage and disposal of hazardous waste. Hazardous Waste is any material or substance that is discarded, relinquished, disposed or burned, or for which there is no intended use or reuse, and the material or substance causes or significantly contributes to an increase in mortality or illness; or the material or substance poses a substantial present or potential hazard to human health or the environment.

Chapter 6.7 of the H&SC outlines the requirements for Underground Storage Tanks (USTs), identifies requirements for corrective actions, cleanup funds, liability, and the responsibilities of owners and operators of USTs.

#### California Human Health Screening Levels

The California Human Health Screening Levels (CHHSLs) can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. CHHSLs are concentrations of 54 hazardous chemicals in soil or soil gas that the CalEPA considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment on behalf of CalEPA, and are contained in their report entitled Human-Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs for Contaminated Soil. The thresholds of concern used to develop the CHHSLs are an excess lifetime cancer risk of one in a million ( $10^{-6}$ ) and a hazard quotient of 1.0 for non-cancer health effects. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the USEPA and CalEPA.

Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding CHHSLs can be assumed to not pose a significant health risk to people who may live (residential CHHSLs) or work (commercial/industrial CHHSLs) at the site.

#### California Education Code

On January 1, 2000, two new laws affecting proposed school sites became effective: Assembly Bill (AB) 387 (Wildman) and Senate Bill (SB) 162 (Escutia). The bills amended the California Education Code (CEC) requiring that the Department of Toxic Substances Control be involved in the environmental review process for the proposed acquisition and/or construction of school properties that will use state funding. The intent of the regulations is to address concerns over school site properties that are or may be contaminated by hazardous materials and may pose a health threat to children and school faculty.

The CEC requires a Phase I ESA be completed prior to acquiring a school site or engaging in a construction project. Depending on the outcome of the Phase I ESA, a Preliminary Environmental Assessment and remediation may be required. Considering the strict requirements for school safety set by the CEC for school site selection, it is important that where schools already exist or are planned, that new land uses are not permitted that would represent a significant hazard to the safety of children.

#### San Diego County, Site Assessment and Mitigation Program

San Diego County's Site Assessment and Mitigation (SAM) Program, within the Land and Water Quality Division of the Department of Environmental Health (DEH), consists of project managers, field technicians, supervisors, and support staff, whose primary purpose is to protect human health, water resources, and the environment within San Diego County by providing oversight of assessments and cleanups in accordance with the California H&SC. The SAM's Voluntary Assistance Program also provides staff consultation, project oversight, and technical or environmental report evaluation and

concurrence (when appropriate) on projects pertaining to properties contaminated with hazardous substances.

#### County of San Diego, Underground Storage Tank Program

The DEH Hazard Management Department (HMD) Underground Storage Tank (UST) Program administers and enforces federal and state laws and regulations and local ordinances for the construction/installation, modification, upgrade, and removal of USTs in San Diego County. If contamination is discovered or likely to be present, owners or operators of USTs are required by law to report the contamination to the DEH HMD and SAM Programs and to take corrective action.

#### County of San Diego Fire Code

The County is unique within the state of California in having 16 fire protection districts within its boundaries. For the purposes of prescribing regulations in the unincorporated area of the County, the applicable fire code is known as the County of San Diego Fire Code, County Code of Regulatory Ordinances Title 9 Division 6 Chapter 1, which adopts and amends the California Fire Code (CCR Title 24 part 9). The County Fire Code consists of local fire protection district ordinances that have modified the Fire Code portion of County Building Code, County Code of Regulatory Ordinances Title 9 Division 1 & 2, which adopts and amends the California Building Code (CCR Title 24 part 2), and includes ignition-resistant construction requirements (Chapter 7A) for wildland fire areas. The purpose of the Code is the protection of the public health and safety, which includes permit and inspection requirements for the installation, alteration or repair of new and existing fire protection systems, and penalties for violations of the code. The Code provides the minimum requirements for access, water supply and distribution, construction type, fire protection systems, and vegetation management. Additionally, the fire code regulates hazardous materials and associated measures to ensure that public health and safety are protected from incidents relating to hazardous substance releases.

#### County of San Diego General Plan- Public Facility Element

The Fire Protection and Emergency Services section of the Public Facility Element of the County General Plan provides a detail of the County's existing fire protection services. The Public Facility Element identifies that rapid response to emergency calls is an essential requirement to providing adequate fire and emergency services.

Objective one seeks to provide, "Sufficient fire and emergency services facilities to meet established emergency travel time objectives to minimize fire and emergency risk."

Travel times are based on category of land use as shown in Table 3.56-1 below.

**TABLE 3.56-1  
EMERGENCY SERVICES TRAVEL TIMES**

Land Use Category	Maximum Travel Time	Land Use Category Defined
Town	5 minutes	Single-family residential lots of less than two acres, or more intensive uses such as multi-family residential. Includes all industrial development and all commercial development except neighborhood commercial
Estate	10 minutes	Single-family residential lots from two to four acres in size. Includes neighborhood commercial development.
Rural	20 minutes	Large lot single-family residential and agricultural development. Lot sizes of greater than four acres.

#### Mosquito Abatement and Vector Control District Law

The intent of the Mosquito Abatement and Vector Control District Law is to create and continue a statutory authority for special districts (or Counties exercising the powers of a district through an existing department or agency) to conduct effective programs for the surveillance, prevention, abatement, and control of mosquitoes and other vectors. It encourages vector control districts to cooperate with other public agencies and to adapt the powers and procedures provided by the law to meet their own local circumstances. Sections §2060-2067 of the Mosquito Abatement and Vector Control District Law addresses the abatement of public nuisances. It grants power to a district to take the necessary steps to abate a public nuisance including the issuance of a notice to inform the owner that the nuisance exists and the steps they should take to abate the nuisance and prevent recurrence.

#### **3.56.2 Guidelines for the Determination of Significance**

For the purpose of this EIR, the basis for determination of significance are the County's Guidelines for Determining Significance for Emergency Response Plans, adopted July 30, 2007 (Guidelines 1, 2, & 10); Hazardous Materials and Existing Contamination; adopted July 30, 2007 (Guidelines 3 through 7); Wildland Fire and Fire Protection, adopted March 19, 2007 (Guidelines 8 & 9); and Vectors, adopted July 30, 2007 (Guidelines 11 through 13).

The proposed project would result in a significant hazard impact if:

1. The project proposes one of the following unique institutions in a dam inundation zone as identified on the inundation map prepared by the dam owner:
  - a. Hospital
  - b. School
  - c. Skilled nursing facility
  - d. Retirement home

- e. Mental health care facility
  - f. Care facility with patients that have disabilities
  - g. Adult and childcare facility
  - h. Jails/detention facility
  - i. Stadium, arena, amphitheater
  - j. Any other use that would involve concentrations of people that could be exposed to death in the event of a dam failure
2. The project proposes a structure or tower 100 feet or greater in height on a peak or other location where no structures or towers of similar height already exist and as a result, the project could cause hazards to emergency response aircraft resulting in interference with the implementation of an emergency response.
  3. The project is a business, operation, or facility that proposes to handle hazardous substances in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC and the project will not be able to comply with applicable hazardous substance regulations.
  4. The project is a business, operation, or facility that would handle regulated substances subject to CalARP RMP requirements that in the event of a release could adversely affect children's health due to the presence of a school or day care within one-quarter mile of the facility.
  5. The project is located on or within one-quarter mile from a site identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5 or is otherwise known to have been the subject of a release of hazardous substances, and as a result the project may result in a significant hazard to the public or the environment.
  6. The project proposes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of an open, abandoned, or closed landfill (excluding burnsites) and as a result, the project would create a significant hazard to the public or the environment.
  7. The project is proposed on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash); and as a result, the project would create a significant hazard to the public or the environment.
  8. The project cannot demonstrate compliance, or offer Same Practical Effect, with applicable fire regulations, including but not limited to the California Fire Code, California Code of Regulations, County Fire Code, or the County Consolidated Fire Code.

9. The project is inconsistent with recommendations, including fuel modification, of a required comprehensive Fire Protection Plan.
10. The project cannot meet the emergency response objectives identified in the Public Facilities Element of the County General Plan or offer Same Practical Effect.
11. The project proposes a BMP for stormwater management or construction of a wetland, pond or other wet basin that could create sources of standing water for more than 72 hours, and as a result, could substantially increase human exposure to vectors, such as mosquitoes, that are capable of transmitting significant public health diseases or creating nuisances.
12. The project proposes a use that involves the production, use and/or storage of manure or proposes a composting operation or facility and as a result, could substantially increase human exposure to vectors that are capable of transmitting significant public health diseases or creating nuisances.
13. The project would result in a substantial increase in the number of residents locate within one-quarter mile of a significant offsite vector breeding source; including but not limited to, standing water (e.g. agricultural ponds, reservoirs) and sources of manure generation or management activities (e.g. confined animal facilities, horse keeping operations, composting operations).

### **3.56.3 Analysis of Project Effects and Determination as to Significance**

#### ***Dam Inundation (Guideline 1)***

A significant impact would occur if the project proposed one of ten specified unique institutions in a dam inundation zone. Unique institutions located or proposed in dam inundation zones could result in a significant loss of life due to the size and nature of the uses and the difficulty with evacuating people in the event of a dam failure. Unique institutions, as defined in the County of San Diego Guidelines for Determining Significance for Emergency Plans, include the following types of facilities: hospital, school, skilled nursing facility, retirement home, mental health care facility, care facility with patients that have disabilities, adult and childcare facility, jails/detention facility, and stadium/arena/amphitheater. The inability to efficiently evacuate unique institutions could cause a significant loss of life.

The Proposed Project includes the construction of a school within Planning Area 2. As shown in Figure 3.56-2, the proposed school site is located outside of the dam inundation zone. Therefore, impacts related to significant losses associated with the inability to efficiently evacuate the school would be **less than significant**.

#### ***Emergency Air Support (Guideline 2)***

A significant impact would occur if the project included a structure or tower 100 feet or greater in height, and as a result cause hazards to emergency response aircraft resulting in interference with the implementation of an emergency response.

The Proposed Project's Community Design Guidelines include a 35-foot height limitation on all structures. Because no structure or tower 100 feet or greater in height would be permitted to be built, there would be no interference with emergency response missions utilizing low flying air craft. Therefore, impacts to emergency air support would be **less than significant**.

***Hazardous Substance Use (Guideline 3)***

A significant impact would occur if the project is a business, operation or facility that proposes to handle, generate, and/or store hazardous substances regulated by Chapters 6.95, 6.5 and 6.7 of the California H&SC. The California H&SC §25501(o) defines hazardous materials as any material that because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or future hazard to human health and safety or to the environment, if released into the workplace or the environment.

Implementation of the Proposed Project would create residential and associated land uses. The Proposed Project does not include the handling of hazardous substances as part of a business subject to the aforementioned regulations. Specifically, the proposed land uses would not result in transport, emission, or disposal of hazardous materials in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC. Therefore, impacts from hazardous materials use would be **less than significant**.

***Hazardous Substances Within One-Quarter Mile of a School/Day Care Facility (Guideline 4)***

A significant impact would occur if the project is a business, operation, or facility that would handle regulated substances subject to CalARP RMP that in the event of a release could adversely affect children's health due to the presence of a school within one-quarter mile of the facility.

The Proposed Project does not include any potential for facilities that handle regulated substances to represent a significant hazard to children when located within one-quarter mile of a school or day care. Regulated substances are chemicals that pose a major threat to public health and safety or the environment because they are highly toxic, flammable or explosive. Regulated substances are subject to CalARP RMP requirements when handled at threshold levels identified in the CCR. The specific threshold levels are not relevant because no regulated substances will be handled as a result of implementation of the Proposed Project.

The adjacent Campus Park development includes a proposal for commercial uses which are unknown at this time. Although the Proposed Project does include the possible development of a school, impacts resulting from the handling of a regulated substance within the Campus Park site would be **less than significant** because these uses would all be located greater than one-quarter mile from the proposed school site. Additionally, the proposed on-site WWTP is located greater than ¼ mile from the potential school site. Therefore, impacts associated with the proximity of the school to the WWTP would be **less than significant**.

***Hazardous Materials Site/ Site Subject to Release of Hazardous Substance  
(Guidelines 5)***

A significant impact would occur if the Proposed Project would be located on or within one-quarter mile of a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 or is otherwise known to have been subject to a release of hazardous substances and, as a result, would create a significant hazard to the public or the environment.

***Hazardous Materials Site***

The Project Site is neither on nor within one-quarter mile of a listed hazardous materials site. Therefore, **no impact** is associated with the hazardous materials site list.

***Site Subject to Release of Hazardous Substance***

***Historical Agricultural Use***

A Phase I and limited Phase II ESA was performed on the Project Site in 2007. The study found that the property has been used for agricultural purposes (primarily citrus and avocado) since at least 1928. Agricultural activities include the application of fertilizers, herbicides, and pesticides. As such, most of the recognized environmental conditions investigated (Figure 3.56-3) are associated with this past agricultural use.

In general, soils contaminated by past agricultural activities are a concern, because of land use changes involving the construction of housing developments on former agricultural lands. Investigation of suspected pesticide contamination on properties proposed for residential development typically includes soil sampling in areas where materials were stored, handled, and mixed in addition to identifying the historical crops grown, pesticides applied, and the methods of application. The investigation and any remedial actions related to pesticide contamination focuses on the elimination of human or environmental exposure.

Although concentrations of pesticides in soil may exceed the Title 22 levels for a hazardous waste, legally applied pesticides, and the resulting residues in soil, are not regulated as hazardous waste unless transported off the subject property (H&SC Section 25117). Constituents of concern at former agricultural sites include organochlorine pesticides and metals which may pose a human health risk. The Phase I and limited Phase II ESA performed on the Project Site evaluated agricultural chemical residues on-site against Preliminary Remediation Goals (PRG) or CHHSLs. The evaluation resulted in a finding that impacts would not be significant; however, there are two irrigation ponds on-site that were not sampled. The possibility that the ponds could contain significant levels of chemical residues represents a potentially **significant impact (HZ-1)**.

Smudge pots are oil-burning devices used to prevent frost on fruit trees. Smudge pots are placed between trees in an orchard, allowing the heat and smoke from the burning oil to prevent the accumulation of frost on the fruit of the grove. Smudge pots were commonly used for several decades in California citrus groves. Smudge pots were observed at several locations within groves on the Project Site. Staining and hydrocarbon odors were detected within the vicinity of several of the smudge pot

locations and the surficial soil in the immediate vicinity of the smudge pots appears to have been impacted by total petroleum hydrocarbons (TPH). Exposure to TPH compounds can result in central nervous system damage, disrupt immune system functions or cause cancer. Therefore, the existence of TPH on-site represents a potentially **significant impact (HZ-2)**.

#### *Historical Construction Materials*

Historic records indicate that the residential properties located on-site were constructed between the early 1970s and mid-1980s. Additionally, several large construction debris piles are located within the Project Site. Redevelopment or demolition of these residential buildings or removal of the debris piles could result in the potential release of hazardous substances such as asbestos or lead-based paint. Potential exposure to these contaminants represents a potentially **significant impact (HZ-3)**.

#### *Existing/Proposed Agricultural Use*

The agricultural operations on the Project Site store and use pesticides, miticides, and bioxides. These chemicals are stored in aboveground storage tanks (ASTs) and plastic containers located in the central portion of the Project Site. Although concentration levels of these chemicals is well below the PRG and Soluble Threshold Limits Concentrations (STLC), all ASTs would have to be removed and disposed according to applicable regulations prior to development. Therefore, impacts associated with the storage of pesticides would be **less than significant**.

Additionally, pesticides are applied to the existing avocado groves by helicopter spraying. Upon implementation of the Proposed Project, the agricultural acreage would be limited to the 49.3 acres of groves that are proposed to remain within agricultural open space. This limited acreage would not be sprayed by helicopter. Pesticide use associated with the on-site agricultural lot would occur in accordance with existing regulations and applicable requirements of the Department of Agriculture Weights and Measures (AWM). The HOA will ensure all applicable pesticide use permits are obtained from the AWM and that applicable permit conditions are complied with for pesticide use on the commonly owned lot. Therefore, compliance with applicable pesticide use regulation would ensure that impacts to residents would be **less than significant**.

The existing residential buildings located on-site utilize septic tank systems. Additionally, there is a historic water well located on-site, but the location is currently unknown. The Proposed Project includes the abandonment and removal of all on-site septic systems, as well as the locating and removal of the historic water well in accordance with all applicable regulations and under permit and approval from the County of San Diego Department of Health. Therefore impacts associated with the on-site septic systems and the historic well are **less than significant**.

#### ***Hazardous Site Location (Guidelines 6 and 7)***

A significant impact would occur if the project proposed structures for human occupancy and/or significant linear excavation within 1,000 feet of a landfill, or if the Project Site is located on or within 250 feet of the boundary of a parcel identified as containing burn ash and, as a result, would create a significant hazard to the public or the environment.

The Project site is not located within 1,000 feet of a landfill (Guideline 6) or within 250 feet of a burn site (Guideline 7). Impacts associated with such hazards are **less than significant**.

***Fire Hazard (Guidelines 8 and 9)***

A significant impact would occur if the project could not demonstrate compliance, or offer Same Practical Effect, with applicable fire regulations, or is inconsistent with recommendations, including fuel modification, of a required comprehensive Fire Protection Plan.

The Project Site is adjacent to the service boundaries of the NCFPD, and within the District's SOI. Thus, project implementation will require annexation into the NCFPD.

The Project Site is located within a declared High Fire Hazard Severity Zone. This classification is due to the type of vegetation, fire history and rough topography in the area. Specifically, the general area of the Project Site is known to have an active wildland fire history; there have been more than 10 large wildland fires burning more than 100 acres during the past 50 years. Local weather conditions such as wind speed and live and dead fuel moistures are a key ingredient to fire intensity and rate of spread. The most critical wind pattern to the Project Site is an off-shore wind coming out of the north/northeast, typically referred to as a Santa Ana wind. Due to this weather pattern, historical fires in the area have burned rapidly during hot, dry, and windy weather, and the majority of these occurred to the north and west of the Project Site (Figure 3.56-4). In order to further assess wildland fire hazards and risks associated with the Proposed Project, a FPP for the Proposed Project was prepared by Firewise 2000, Inc. and is included in its entirety in Appendix JK-2.

The Proposed Project includes native vegetation comprised of both coastal sage scrub and chaparral to remain on-site within open space located along the northern and eastern perimeter of the Project Site. Additionally, 49.3 acres of avocado and citrus groves will be retained in locations primarily adjacent to the natural open space. Residential planning areas are proposed adjacent to both the agricultural and natural open space areas. The vegetation both on-site and surrounding the entire Project Site therefore can be a threat to carry a fast rate-of-spread and moderate to very high intensity wildland fire from the north or east.

A Fire Fuel Assessment, or fire model, is included in the FPP. This evaluation utilized the BEHAVE PLUS 3.0.1 Fire Modeling System to provide a worst-case scenario wildland fire event based on site topography, fuel loads, weather conditions and maximum heat production. The results of the model, coupled with the expertise of the modeler, were used to identify minimum fuel modification and brush clearing distances to assure relatively safe building sites.

Different fuel models were used for different areas within the Project Site. Each assessment considered the type of fuel, topography and exposure to prevailing winds:

- Northern Boundary: Due to the development areas abutting both natural and orchard vegetation proposed to remain within the northern project boundaries, the fire model analyzed this area as Fuel Model 18 (70% coastal sage/buckwheat) and Fuel Model 6 (30% intermediate chaparral with brush up to six

feet in height). A fire burning in this “Combined Fuel Model 18/6” can be expected to expose adjacent structures to one to three minutes of significant radiant and convective heat. This fuel model also considered the location of the Project Site, on the west side of Monserate Mountain where it would be exposed to strong north or northeast Santa Ana winds up to 60 mph, as well as the moderately steep slopes of 25 to 50 percent. Although the slopes are downhill, generally advantageous to reduce fire hazard potential, the model identified potential flame length of 43.8 feet.

- Eastern Boundary: Natural and orchard fuels are to remain along the entire eastern boundary of the Project Site. The primary area of concern is the homes proposed to be located on the eastern perimeter of the remaining vegetation. This area was analyzed using Fuel Model 18 with projections of an extreme Santa Ana wind of 60 mph on downhill slopes of 55 percent. The model identified potential flame length of 42.1 feet.
- Southern Boundary: The service road for the WWTP is proposed along nearly all the southern edge of the Project Site. This area was analyzed using Fuel Model 18, considering a near level slope in alignment with a west or southwest wind pattern. This assessment included both a “rare event” 30 mph wind and “typical summer day” wind of 10 mph. The model identified potential flame length of 33.8 feet and 19.6 feet, respectively.
- Western Boundary: Vegetative fuels along the western boundary of the Project Site are lighter than those found on the other boundaries due to frequent disturbances and identified for fuel modeling purposes as intermediate grass of two feet in height, Fuel Model 2. The vegetation so located on nearly level to slightly sloping topography of three to 15 percent. The greatest weather concern in this area is a “rare event” 30 mph wind. The model identified potential flame length of 19.0 feet. This assessment also considered the potential of a fire burning west of the western boundary resulting in the potential of a crown fire developing in the riparian vegetation especially in areas with high accumulations of dead material located in the tree canopy. Such a fire could produce flame lengths of 29.2 feet.

As a result of the findings of the fire modeling, project design features were incorporated into the Proposed Project including the creation of fuel modification zones, guidelines relating to the use of ignition resistant building materials, road requirements, placement and flow of fire hydrants, and the provision of emergency access.

**Fuel Modification Zones:** Due to potential flame lengths, the FPP recommends fuel modification zones totaling 100 feet to assure adequate fire protection of all structures. Specifically, “Zone A” is comprised of the first 50 feet around structures and provides defensible space for fire suppression forces to protect those structures from radiant and convective heat. It is an irrigated zone, free of all combustible construction, firewood, propane tanks, fuel, and flammable native and ornamental vegetation. “Zone B” is an additional 50 feet beginning at the outer edge of “Zone A.” To establish the required fuel modification to the west of the proposed multi-family units in PA1, the applicant will obtain a permanent easement for fuel management of the adjacent property.

Figure 3.56-5 shows the Conceptual Fire Protection Plan Map which includes the location of the fuel modification zones. Acceptable plantings and required landscaping and maintenance for both Zone A and Zone B are detailed in the FPP. Additionally, the Proposed Project's Homeowners Association will be responsible to ensure that brush clearance regulations are maintained.

**Ignition Resistant Building Materials:** The County Fire and Building Codes provide a two tiered approach for the requirement that all new construction use ignition resistive building materials. Basic ignition resistive construction materials are required for all new construction. Enhanced ignition resistive materials are required for structures subject to one or more of the following special hazards or conditions: high fuel loads, steep topographic conditions, less than 100 feet of fuel modification, or areas identified as "high to very high fire hazard areas."

**Road Requirements:** All on-site roads will be subject to applicable road standards relating to width, grade and surface type as provided in County Fire Code sections 902.2.2.1, 902.2.2.6, and 902.2.2.2, respectively. The FPP specifically requires that no road within the development shall exceed 20 percent grade, with a minimum width of 24 feet within the multi-family portion of the development. All cul-de-sacs of greater than 150 feet in length shall be provided with a minimum 42 foot AC radius turnaround. The FPP additionally concludes that roadside fire clearing is required within 30 feet of the roadway edge for new roads and within 20 feet of the roadway edge for existing roads. Figure 3.56-5 details the areas of the Proposed Project requiring roadside fire clearing.

**Fire Hydrants:** The FPP identifies the need for a minimum of 40 residential type fire hydrants having a flow capacity of supplying 1,500 GPM at 20 pounds residual pressure with not less than 2,500 GPM available in the mains. Hydrants are required to be placed at intersections, at the beginning radius of cul-de-sacs and at intervals of not less than 650 feet in single family residential areas. In multi-family areas, commercial type fire hydrants are required to be installed at intersections, at the beginning radius of cul-de-sacs and at intervals of not less than 300 feet of fire access roadways.

**Emergency Access:** Emergency access is required to assure a reliable means of egress for residents during a fire event that is safe and separate from the primary access. Fire access for the Proposed Project will be provided via a northeasterly extension of Street "E" to Rice Canyon Road. This fire access will meet emergency access requirements.

The FPP provides direction for assuring that a community is reasonably safe from fire hazards. Based on the fire modeling and commentary included in the FPP, project design measures have been included in the Proposed Project relating to fuel modification zones, use of ignition resistant building materials, road requirements, fire hydrants, and the provision of fire access. As a result of these project design measures hazards associated with wildfires will be **less than significant**.

### ***Emergency Response (Guideline 10)***

A significant impact would occur if the project could not meet emergency response objectives identified in the Public Facility Element of the County General Plan or offer Same Practical Effect. Projects must comply with the emergency travel time requirements specified in the Public Facility Element of the General Plan. Travel time is defined as the estimated time it will take for a responding agency to reach the furthest

structure in a proposed development project. Travel time is determined by measuring the most direct reliable route with consideration given to safe operating speeds for heavy fire apparatus.

Pursuant to the land use category definitions in the Public Facility Element, the Proposed Project would be considered a “town” and subject to a five minute maximum travel time for emergency response.

The FPP prepared for the Proposed Project addresses fire department response times. The study concludes that residents of the Proposed Project will be within a three to five minute initial response time for NCFPD Station #4 located at 4375 Pala Mesa Drive (Figure 3.56-1). Specifically, traveling at 35 mph, the furthest dwelling unit can be reached in five minutes, which is consistent with the General Plan requirement (see FPP, Appendix J-2). Therefore, the Proposed Project will meet emergency response objectives identified in the Public Facility Element and impacts associated with emergency response time will be **less than significant**.

### ***Vectors (Guidelines 11 through 13)***

A significant impact would occur if the project would substantially increase human exposure to vectors capable of spreading disease by proposing a vector breeding source, including but not limited to, sources of standing water for more than 72 hours (e.g., ponds, stormwater management facilities, constructed wetlands); or proposing a use that involves the production, use and/or storage of manure or a composting operation; or proposing a substantial increase in the number of residents located within one-quarter mile of an existing off-site vector breeding source.

The Proposed Project would not be within one-quarter mile of an existing off-site vector source nor would the Proposed Project involve the use, production or storage of manure. The Proposed Project does include the construction of stormwater management facilities intended to relieve potential affects of stormwater run-off including the creation of sources of standing water.

Stormwater BMPs could result in vector production through the pooling or ponding of water for time sufficient to permit the emergence of adult mosquitoes. In order to prevent such infestation, captured water must be discharged within 72 hours, existing mosquitoes must be denied access to standing water and/or the habitat made less suitable for mosquito breeding. The SWMP for the Proposed Project is included in its entirety in Appendix M-1. The SWMP provides a discussion of those BMPs required to be included in the Proposed Project’s design in order to assure the control and maintenance of stormwater run-off resulting from the construction of new impervious surfaces and redirection of on-site drainage. Specifically, the following BMPs, included in the Proposed Projects design, would preclude vector breeding: 1) all hydrodynamic separators would be designed to exclude vectors from enclosed sources of standing water in structural BMPs; and 2) all detention basins would be designed for rapid discharge, completely draining within 24 to 72 hours in order to prevent basins from becoming sources for vectors.

The on-site WWTP could result in exposure to vectors. Standing water in excess of 72 hours is not expected within treatment facilities, however will be likely within the wet weather ponds. The primary method of vector control, specifically to prevent mosquito

breeding for the wet weather ponds will be vegetative management and chemical control, as necessary. The wet weather ponds are designed to operate so that half of the ponds are filling while the other half are empty. This allows sufficient time to control and remove emergent vegetation conducive to mosquito production. As necessary, mosquito larvicides may be applied within the ponds to deter mosquito breeding. The U.S. EPA reports that, when used properly, mosquito larvicides are of no concern for human health threats and do not pose risks to wildlife or the environment.

Implementation of the Proposed Project would include the construction of stormwater BMPs and vector control measures. The stormwater system would be designed to ensure that 1) existing vectors are excluded from stormwater facilities and 2) habitat suitable for vector breeding is minimized. Vector control within the WWTP's wet weather ponds would be maintained through pond design, and application of larvicides, as needed. These design measures would ensure that impacts associated with vectors would be **less than significant**.

#### **3.56.4 Cumulative Impact Analysis**

The cumulative study area for potential impacts associated with hazards would be different based on the particular hazard.

##### **On-Site Contamination**

Impacts to residents of the Proposed Project from existing on-site hazardous materials can be mitigated to a level of less than significant with the implementation of project design features and mitigation measures **M-HZ-1, M-HZ-2, and M-HZ-3 a and b** listed in Section 3.56.5 below. Similar measures will be implemented for the other cumulative projects under consideration. Therefore, no cumulative impacts from on-site hazards would result from development of the Proposed Project.

##### **Dam Inundation**

The cumulative study area related to potential hazards from a dam inundation zone would be the area of the zone. As shown in Figure 3.56-2, the areas that lie within the dam inundation zone from the Henshaw Dam in the vicinity of the Proposed Project are primarily used for agricultural purposes with the exception of the Lake Rancho Viejo development. A portion of the Proposed Project lies within the mapped dam inundation zone; however, direct impacts were determined to be less than significant. No cumulative impacts will occur as a result of the Proposed Project.

##### **Fire Hazard**

Due to the unpredictable and damaging nature of a wildfire, the entirety of the undeveloped portions of San Diego County could be considered the cumulative impact area for fire hazard impacts. To study such an area would be unreasonable; however, the requirement for stringent fire protection plans and the implementation of regulations throughout the county and surrounding cities assure that site specific measures are taken to address potential impacts. Generally, when a project is constructed it results in the removal of available flammable fuels for wildfire to consume and breaks up fuel continuity. This effectively gives fire suppression resources an opportunity to contain and control a wildfire. The Proposed Project has prepared an FPP that addresses the project's specific risk for wildfire impacts. The FPP reduces wildfire impacts through

design measures, landscaping standards, and operational procedures. Additionally, the Proposed Project is required to adhere to Fire Code standards of construction and land development. Based on ~~approval~~ acceptance of the FPP, associated landscaping plans, and fuel modification zones, implementation of the Proposed Project would not contribute to any significant cumulative impacts related to wildfires.

## Vectors

As stated in Section 3.56.3 above; on-site vector control would be accomplished through design measures that ensure rapid drainage on-site and the removal of opportunities for vector breeding (e.g., standing water). The SWMP for the project includes BMPs which ensure that there would be no significant impacts associated with vectors. Additionally, should it be required, pest control within the agricultural groves that are to be preserved on-site would be conducted at the direction of the HOA. Therefore, implementation of the Proposed Project would not contribute to any significant cumulative impacts related to vector infestation.

### 3.56.5 Mitigation Measures Proposed to Minimize the Significant Effects

- M-HZ-1** Prior to grading, irrigation water shall be removed from the two on-site irrigation ponds and soil samples from the bottom of the ponds shall be collected and analyzed for potential agricultural residues, to the satisfaction of the Director of DEH. If contamination is present, provide evidence to the satisfaction of the Director of DEH that all contaminated soils from the irrigation ponds have been remediated under the oversight of the DEH's SAM Program or removed and properly disposed of at an appropriately permitted facility, in accordance with government agency regulations.
- M-HZ-2** Prior to grading, surficial soil in the vicinity of the smudge pots and elsewhere on the property where minor surficial staining is evident shall be excavated, removed from the site, and properly disposed of at an appropriately permitted facility, in accordance with government agency regulations and to the satisfaction of the County DEH.
- M-HZ-3a** Prior to issuance of a building permit that includes demolition of on-site structures and prior to commencement of demolition or renovation activities, a facility survey shall be performed to determine the presence or absence of ACMs located in the buildings to be demolished. Suspect materials that will be disturbed by the demolition or renovation activities shall be sampled and analyzed for asbestos content, or assumed to be asbestos containing. The survey shall be conducted by a person certified by Cal/OSHA pursuant to regulations implementing subdivision (b) of Section 9021.5 of the Labor Code, and shall have taken and passed an EPA-approved Building Inspector Course. Should regulated asbestos containing materials be found, it shall be handled in compliance with the San Diego County Air Pollution Control District Rule 361.145 – Standard for Demolition and Renovation. Evidence of completion of the facility survey shall be submitted to County DEH and shall consist of a signed, stamped statement from the person certified to complete the facility survey indicating that the survey has been completed and that either regulated asbestos is present or absent. If present, the letter shall describe the procedures that will be taken to remediate the hazard.

**M-HZ-3b** Prior to issuance of a building permit that includes demolition of on-site structures and prior to commencement of demolition or renovation activities, a survey shall be performed by a California Department of Health Services (DHS) certified lead inspector/risk assessor to determine the presence or absence of lead based paint (LBP) located structures to be demolished. All lead containing materials scheduled for demolition must comply with applicable regulations for demolition methods and dust suppression. Lead containing materials shall be managed in accordance with applicable regulations including, at a minimum, the hazardous waste disposal requirements (Title 22 California Code of Regulations [CCR] Division 4.5), the worker health and safety requirements (Title 8 California Code of Regulations Section 1532.1), and the State Lead Accreditation, Certification, and Work Practice Requirements (Title 17 CCR Division 1, Chapter 8). The survey must be submitted to and deemed complete by the County DEH.

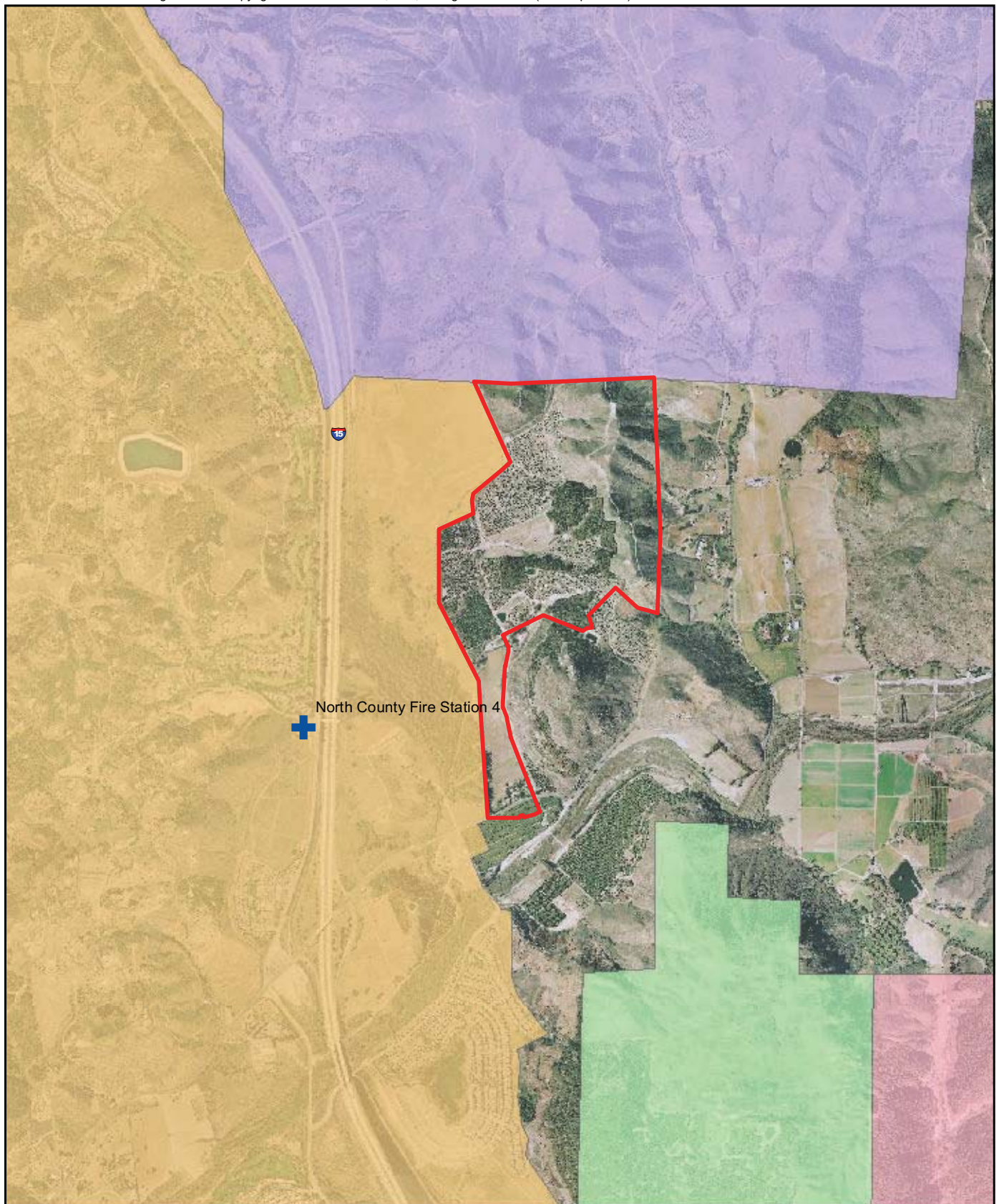
### **3.56.6 Conclusion**

There are two irrigation ponds located on the Project Site. The potential for chemical residue within these ponds represents a potentially significant impact (HZ-1). Mitigation measure M-HZ-1 requires the analysis of soil samples from within the ponds to determine whether they have been contaminated. Depending on the results of the testing, remediation and disposal action shall be taken under the oversight and direction of DEH. Implementation of this measure assures the detection and remediation of potentially harmful contaminants within the ponds. This measure reduces potentially significant impacts associated with the irrigation ponds to a level that is less than significant.


The existence of several contaminated smudge pots observed on the Project Site represents a potentially significant impact (HZ-2). Mitigation measure M-HZ-2 requires the excavation, removal and disposal of soils within the vicinity of the smudge pots. This action will be done in accordance with all applicable government agency permitting and regulations. Implementation of this measure assures the removal of potentially harmful contaminants within the Project Site. This measure reduces potentially significant impacts associated with the smudge pots to a level that is less than significant.

Demolition of existing structures on the Project Site could result in the release of asbestos and/or lead (HZ-3). Mitigation measures M-HZ-3a and M-HZ-3b provides that prior to demotion and/or renovation measures are taken in accordance with all appropriate regulations to assure protection against the release of asbestos and/or lead. These measures reduce potentially significant impacts associated contaminations to a level that is less than significant.

Incorporating mitigation measures M-HZ-1 through M-HZ-3b and design considerations that are listed in Table 1-5 would reduce impacts resulting from the implementation of the Proposed Project to a level that is less than significant.




 Project Boundary **Fire Protection Districts**

 Fire Station

 DEER SPRINGS FPD

 NORTH COUNTY FPD

 NORTH COUNTY FPD - RAINBOW SUBZONE

 VALLEY CENTER FPD

  
0 Feet 2,500

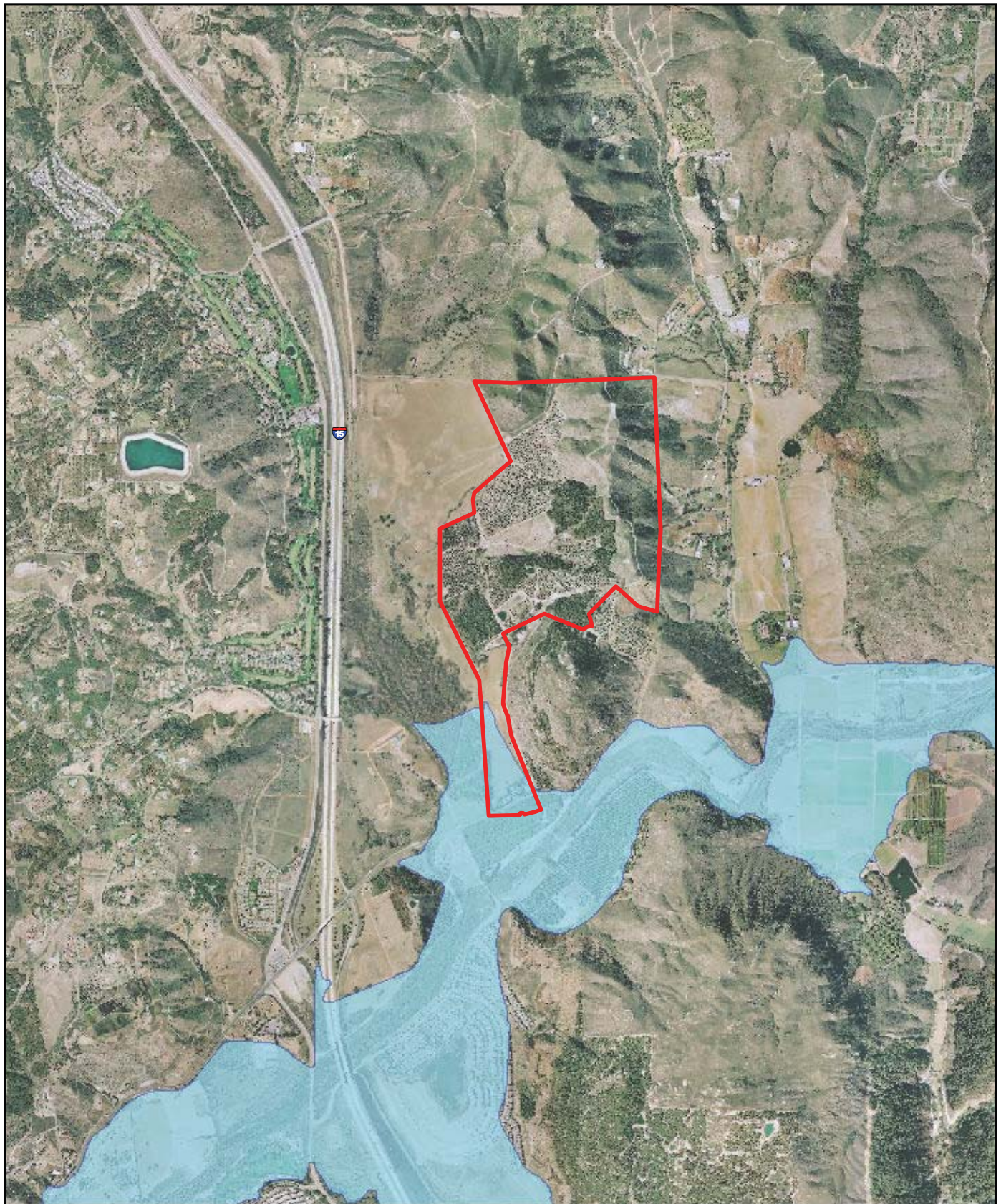




RECON



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FIGURE 3.5-1

Fire Protection Districts



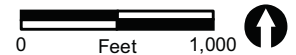
 Project Boundary  
 Dam Inundation Zone

 0 Feet 2,500 

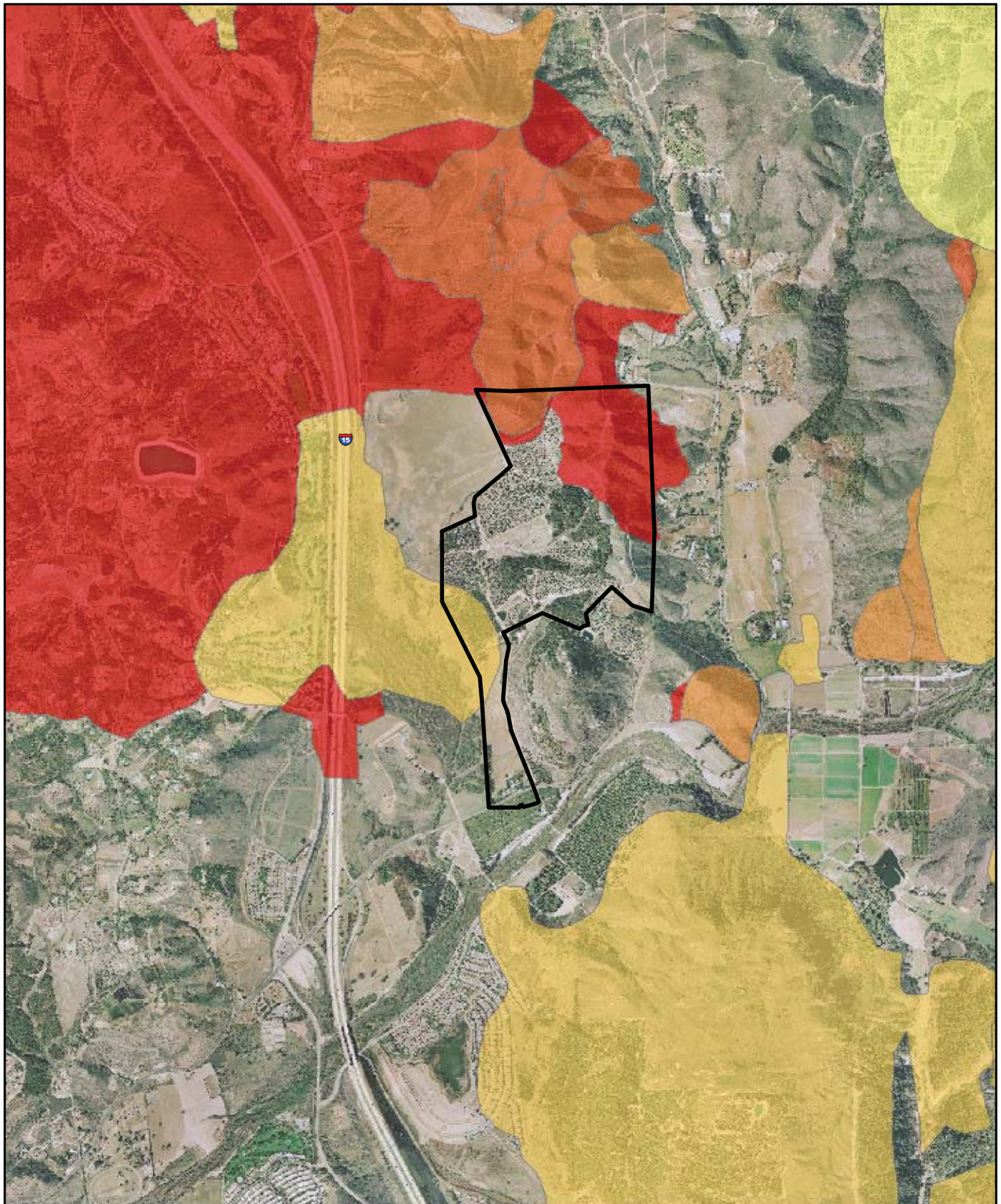
RECON

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FIGURE 3.5-2  
Dam Inundation Zone

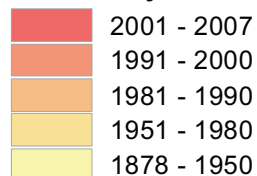


RECON



Project Boundary

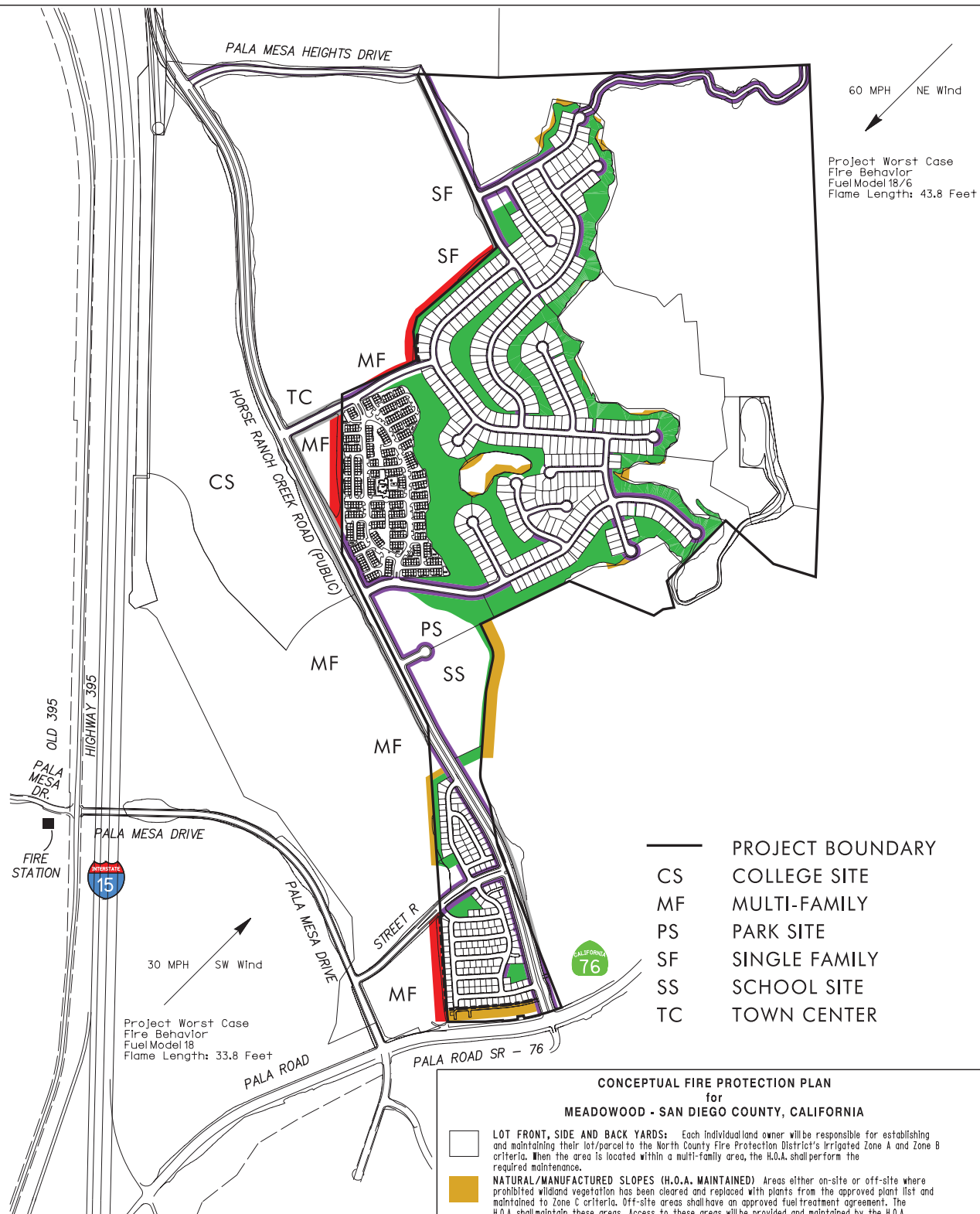
**Fire History**



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**FIGURE 3.5-4**  
Historical Wildfire Boundaries



- PROJECT BOUNDARY
- CS COLLEGE SITE
- MF MULTI-FAMILY
- PS PARK SITE
- SF SINGLE FAMILY
- SS SCHOOL SITE
- TC TOWN CENTER

# CONCEPTUAL FIRE PROTECTION PLAN for MEADOWOOD - SAN DIEGO COUNTY, CALIFORNIA

- LOT FRONT, SIDE AND BACK YARDS:** Each individual land owner will be responsible for establishing and maintaining their lot/parcel to the North County Fire Protection District's Irrigated Zone A and Zone B criteria. When the area is located within a multi-family area, the H.O.A. shall perform the required maintenance.
- NATURAL/MANUFACTURED SLOPES (H.O.A. MAINTAINED)** Areas either on-site or off-site where prohibited wildland vegetation has been cleared and replaced with plants from the approved plant list and maintained to Zone C criteria. Off-site areas shall have an approved fuel treatment agreement. The H.O.A. shall maintain these areas. Access to these areas will be provided and maintained by the H.O.A.
- MANUFACTURED SLOPES COMMON AREAS (H.O.A. MAINTAINED)** Irrigated or non-irrigated Firewise Landscaping of native grasses or native or ornamental plants and shrubs per the approved plant list. Should a manufactured slope occur within 50 feet of a home or other structure, then Irrigated Zone A criteria shall apply and between 50 - 100 feet of a home or other structure, Zone B criteria shall apply. The common areas are to be annually maintained by the H.O.A.
- TEMPORARY FUEL MODIFICATION AGREEMENT ZONE (H.O.A. MAINTAINED)** An off-site area where the adjacent owner will allow the H.O.A. to maintain the area to Thinning Zone C criteria until such time as the area is developed. The area shall be 30 feet in width west of PA-1 and as shown elsewhere.
- ROADSIDE FUEL TREATMENT (H.O.A. MAINTAINED)** An area along both new public and private roads located within the project where the vegetation shall be maintained to Irrigated Zone A criteria within 30 feet of the roadway or to the adjacent private property line. The area shall be maintained by the H.O.A.
- ROADSIDE FUEL TREATMENT AGREEMENT (H.O.A. MAINTAINED)** An area located outside the project where the vegetation along a road shall be maintained to Irrigated Zone A criteria within 30 feet of the roadway. Alternatively, the native vegetation may be cleared in lieu of planting.
- SPECIAL FIRE PROTECTION FEATURE** Non-combustible solid fire deflection wall, six feet in height installed at the locations shown. The wall may contain a view wall in the upper half where tempered glass is installed as long as the wall remains solid and non-combustible.

Certified By

David C. Bacon  
President

Date

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This information is prepared by Pardee Homes for its internal use only. Such information is based upon preliminary estimates and assumptions, and it is not a representation of actual results, nor does it commit Pardee Homes to a certain course of action.



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June 22, 2009

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